

### Overview

The MIO R-1 AUDIO (FG147-04) remote provides custom control features, contained in an elegant handheld device, designed specifically for use with Matrix Distributed Audio Systems using Metreau DAS-MET-6SRC keypads.

The MIO R-1 AUDIO controls up to 8 different devices or Sources.



FIG. 1 MIO R-1 AUDIO remote controller

### Specifications

MIO R-1 AUDIO Specifications	
Power Requirements:	4 AAA Alkaline Batteries (included) - approx. 5 hours battery life
Transmission Frequencies	AMX 38 KHz/455 KHz IR Note: The Metreau MET-6N keypads only support 38 KHz. When used with MET-6N keypads, the MIO R-1 AUDIO must be set to 38 KHz.
Transmission Range (distance) with MIO IR Receiver	<ul style="list-style-type: none"> <li>100 feet at 38KHz</li> <li>50 feet at 455KHz</li> </ul>
Transmission Range (angle)	<ul style="list-style-type: none"> <li>140 degrees (+/-70° from perpendicular) horizontally from an axis extending from the end of the remote.</li> <li>40 degrees (+/-20° from perpendicular) vertically from an axis extending from the end of the remote.</li> </ul>
Top Components	<ul style="list-style-type: none"> <li>LED - blue backlit buttons indicate device is awake</li> <li>Display (OLED) - 128 x 32 pixels, active area is 29.42mm x 7.98mm</li> <li>Pushbuttons - the power button is red backlit; the rest are blue backlit buttons. 45 buttons; 9 custom buttons (3 macro and 6 device).</li> </ul>
Rear Component	<ul style="list-style-type: none"> <li>Programming Port - 2.5 mm stereo female conductor jack</li> <li>Battery Door</li> </ul>
Dimensions (HWD)	9.50 x 2.00 x .74 (241.3 mm x 50.8 mm x 18.80 mm)
Weight	<ul style="list-style-type: none"> <li>.45 lbs (20 kg) without batteries</li> <li>.55 lbs (25 kg) with batteries</li> </ul>
Operating Environment:	<ul style="list-style-type: none"> <li>Operating Temperature: 0° to 50° C (32° to 122° F)</li> <li>Storage Temperature: -10° to 70° C (14° to 158° F)</li> </ul>
Included Accessories:	4 AAA Batteries
Other AMX Equipment	<ul style="list-style-type: none"> <li>DB-9 extension cable (FG10-727)</li> <li>Programming Cable - a 3 wire, 2.5 mm stereo jack (FG10-817)</li> <li>Custom engraving (FG147-01)</li> <li>MIO-RCC Kit (FG147-03K)</li> <li>MIO-RCC Charging Base (FG147-02)</li> <li>MIO-RBP Rechargeable Lithium Ion Battery (FG147-10)</li> <li>MIO Modero IR Receiver (FG5797-01xx; xx indicates color)</li> </ul>

### Installing Custom Buttons

1. Flip and turn the MIO R-1 AUDIO so that the buttons are facing away from you and the device is upside down.
2. Holding the device in both hands, place your thumbs on the battery door and push up to slide the battery door free.
3. Unscrew the 6 screw points indicated in FIG. 2.

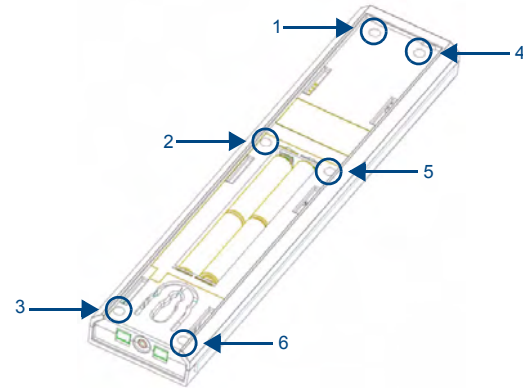


FIG. 2 6 screwpoints (battery compartment cover removed)

4. Turn the unit over so the buttons are facing you.
5. Lift the top assembly away from the PCB.
6. If necessary, push out the standard buttons from the front of the top assembly.
7. Drop on your custom button pad and verify the alignment with the guide posts on the PCB.
8. Place the top assembly back down on the PCB and return the unit over, exposing the 6 screw points.
9. Tighten the 6 screw points.
10. Place the battery door back on the device, slide to lock it in place.

### Inserting Batteries into The MIO R-1 AUDIO

To install your 4 AAA batteries into the MIO R-1 AUDIO:

1. Flip and turn the MIO R-1 AUDIO so that the buttons are facing away from you and the device is upside down.
2. Holding the device in both hands, place your thumbs on the battery door and slide the battery door free.
3. Insert the batteries as indicated inside the battery compartment.
4. Place the battery door back on the device, slide to lock it in place.

### Battery Low Indicator

When the battery charge level is too low to sustain continuous operation, the LCD flashes, "Battery Low" and the device shuts down.

### Programming The MIO R-1 AUDIO Using KeypadBuilder

The MIO R-1 AUDIO comes pre-customized with appropriate labels, which in most cases should not be changed. However, if in your installation you intend to use the MIO R-1 AUDIO with a NetLinX Controller and Metreau AxLink keypads (for more than just Audio), you could customize your buttons in the KeypadBuilder application. The application and documentation are available from [www.amx.com](http://www.amx.com).

There are a select number of Serial Commands the MIO R-1 AUDIO recognizes. For a full list and descriptions, consult the *MIO R-1 AUDIO Operation/Reference Guide*.

The Programming Jack is used for communication between the device and KeypadBuilder. The programming jack uses a three-wire, 2.5 mm stereo jack, you can order the programming cable (FG10-817) from AMX if you do not currently possess one. While loading your configuration file make sure the device is situated as such that the batteries will not fall out. The load will fail if your batteries fall out during the process. **The MIO communicates at 115200 baud rate.**

Refer to the *MIO R-1 AUDIO Operation/Reference Guide* for instructions on using the Programming Jack to load configuration files on the MIO R-1 AUDIO.

### Tone Control & SRS Setting

To access the Tone Control and SRS settings, press the TONE button. This enables the Tone Control Mode with BASS as the first mode selected. There are 3 Tone Control Modes available for adjustment, and 4 SRS options, as follows:

- BASS: Increase / Decrease from -10dB to +10dB (Up/Down NAV buttons)
- Treble: Increase / Decrease from -10dB to +10dB (Up/Down NAV buttons)
- Balance: Left / Right (Up NAV button = right, Down NAV button = left)
- SRS options: BASS Boost, Focus, 3D, WOW

The Source buttons on the Metreau keypad provides visual feedback as to which mode it is currently in. The following sources will light based on the current mode:

- Source 1 = BASS
- Source 2 = Treble
- Source 3 = Balance
- Source 4 = SRS

When first entering Tone Control Mode, BASS mode is active (Source 1 LED is lit). To move from mode to mode, select the Center NAV button. This saves the setting and moves to the next mode.

**Note:** While in each of the modes, press and hold the Center NAV button to return to the default for that mode.

### SRS (Bass Boost, Focus, 3D and WOW) Settings

Use the UP Nav button to cycle through the SRS Settings: BASS Boost, Focus, 3D, WOW (in that order).

Use the Down NAV button to cycle backwards to the previous SRS setting.

- Press and hold the Center NAV button to disengage/clear the SRS settings (none of the SRS modes will be engaged).
- Press the Center NAV button to save SRS Mode & exit from Tone Control set-up.

Only one SRS mode can be engaged per room/zone. Each room/zone, however, can have a different SRS mode.

The Volume LED's are used to provide feedback as to which SRS setting is active:

- No LED = SRS Off
- LED1 = BASS boost
- LED 1&2 =Focus
- LED 1,2&3 =3D
- LED 1,2,3&4 =WOW

Moving from one SRS position to another disengages the original setting i.e. moving from WOW to BASS BOOST, disengages WOW.

### Zone Control

- **To turn a single Zone ON**, press any Source button (or press the Power Button).  
**Note:** If the Power button is pressed, the zone will turn ON and will remember which source was previously ON.
- **To turn a single Zone OFF**, press the Power button.
- **To turn a specific Source ON in all Zones**, press and hold any Source button (the selected source will turn on and play in all zones).
- **To turn a specific Source OFF in all Zones**, press and hold the active Source button.
- **To Turn All Zones OFF (System OFF)**, Press the "OFF" button. All zones will be turned off, and no sources will play.  
**Note:** One minute after an ALL OFF has been performed, the Controller and all Sources will be powered down  
**Note:** Pressing Source Buttons switches between sources and turns the Source On, but does not toggle between ON and OFF.

### Source Control

The source control functionality outlined below represents "suggested" functions. All source control buttons (Up, Down, Left, Right, Center and Center HOLD) can be customized via the Controller Menu for all sources except for the Internal Tuner, which cannot be customized.

#### Internal Tuner and Audio Server

NAV Button	Internal Tuner	AUDIO SERVER
NAV Up	SEEK UP	NEXT
NAV Down	SEEK DOWN	PREVIOUS
NAV Left	Prev PRESET	Prev PAGE
NAV Right	Next PRESET	Next PAGE
NAV Center (press)	AM/FM	SELECT
NAV Center (press/hold)	Stereo/Mono	User Defined 1

#### CD and DVD

NAV Button	CD	DVD
NAV Up	Next TRACK	UP
NAV Down	Prev TRACK	DOWN
NAV Left	Prev DISC	LEFT
NAV Right	Next DISC	Right
NAV Center (press)	User Defined1	Select
NAV Center (press/hold)	User Defined2	Menu

#### Satellite and Other

NAV Button	External Satellite	Other
NAV Up	Next Channel	User Def UP
NAV Down	Prev Channel	User Def DOWN
NAV Left	Guide Down	User Def LEFT
NAV Right	Guide UP	User Def RIGHT
NAV Center (press)	Select	User Def SELECT
NAV Center (press/hold)	Guide	User Def HOLD SELECT

#### Custom XM

NAV Button	CUSTOM XM
NAV Up	UP
NAV Down	DOWN
NAV Left	LEFT
NAV Right	RIGHT
NAV Center (press)	CENTER
NAV Center (press/hold)	CEN hold

### Direct Numeric Access

#### Tuners

Enter the station identification and press ENTER.

- Strings of 3 to 4 numbers are recognized.
- If a "." (dot) is part of the string, then an FM station is assumed, otherwise an AM station is assumed.  
*Example:* 1050 + ENTER= 1050AM, 104 • 5 + ENTER = 104.5FM

#### CD Player / Changer

**To select a specific Disc & Track**, the format is DDD • TTT + ENTER (DDD=Disc, TTT=Track).

*Example:* 11.11 + ENTER = Disc 11, Track 11

**To select a specific track on the current disk**, enter TTT + ENTER (TTT=Track).

*Example:* 3 + ENTER = current disk, Track 3

#### Satellite Radio/Video

Enter the station number and press ENTER. Strings of 2 - 4 numbers are recognized.

#### Configuration Mode

The configuration mode allows you to set various device features (IR Transmit Mode, Timeout Adjustment, Download Mode, Debug Mode, Battery Type, LED Awake Brightness, and LED Sleep Brightness).

To enter Configuration Mode:

1. Press and hold button #38 and the "." (dot) or button #26 (see FIG. 1). Both buttons must be pressed within 0.1 seconds of each other and held down for 2 seconds. The device indicates you are now in configuration mode.
2. Press button #3 (FAV) when you are finished.

**Note:** Your settings will not be lost in the event your batteries die or are removed.

#### IR Transmit Mode

**Note:** Metreau MET-6N keypads support 38KHz only. The MIO R-1 AUDIO must be set to 38KHz if used with MET-6N keypads.

Pressing button 1 toggles the IR transmission mode between 38KHz (default) and 455KHz. The display indicates the current mode.

#### Timeout Adjustment

Press button 2 to change the sleep timeout from the default. Each time "2" is pressed, the sleep timeout raises incrementally. The pre-determined sleep timeouts are: 3 seconds, 6 seconds, 9 seconds, and 12 seconds. The display indicates the selected sleep timeout.

#### Download Mode

Pressing button 3 toggles the Download mode OFF and ON. The Download mode must be ON before you can download a file to the MIO R-1 AUDIO device. While the Download mode is ON the device will not go to sleep. A power cycle will return the device to Download OFF.

#### Debug Mode

Pressing button 4 toggles development mode between ON and OFF. The display indicates the selected mode. In development mode, the display shows the IR code assigned to buttons when pressed.

This mode is useful to the programmer when determining what IR codes are associated to each mode.

#### Battery Type

Pressing button 6 toggles the battery type between Normal and Recharge. The display indicates the selected type. The type of battery in the MIO R-1 AUDIO dictates the battery type you need to set.

#### LED Awake Brightness

Pressing button 7 toggles the Power LED brightness mode from LOW to MED and then HIGH. The display indicates the selected mode.

#### LED Sleep Mode Brightness

Pressing button 8 toggles the Sleep brightness mode from OFF to LOW and then MED. The Sleep brightness is the state the MIO R-1 AUDIO assumes while in the charging cradle.

#### Additional Documentation

Refer to the MIO R-1 AUDIO Remote Operation/Reference Guide for additional information on MIO R-1 AUDIO functionality, including: Privacy Mode, Presets, Zone Grouping, Favorites, Alarm, and Keypad Lockout.

